AMENDMENTS TO THE CLAIMS

Please amend the claims as indicated below.

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): A method for the heat treatment of solids containing iron oxide, in which fine-grained solids are heated to a temperature of 700 to 1150°C in a fluidized bed reactor, comprising introducing the solids into the reactor, introducing a first gas or gas mixture from below through at least one gas supply tube into a mixing chamber of the reactor located above the orifice region of the at least one gas supply tube, the at least one gas supply tube being at least partly surrounded by a stationary annular fluidized bed which is fluidized by supplying fluidizing gas, wherein the gas flowing through the at least one gas supply tube entrains solids from the stationary annular fluidized bed into the mixing chamber when passing through the upper orifice region of the at least one gas supply tube, and further comprising adjusting the gas velocities of the first gas or gas mixture and of the fluidizing gas for the annular fluidized bed such that the Particle-Froude-Number in the at least one gas supply tube are between 1 and 100, in the annular fluidized bed between 0.02 and 2, and in the mixing chamber between 0.3 and 30, and removing treated solids from the reactor.

Claim 2 (Previously Presented): The method as claimed in claim 1, wherein the Particle-Froude-Number in the at least one gas supply tube is between 1.15 and 20.

Claim 3 (Previously Presented): The method as claimed in claim 1 wherein the Particle-Froude-Number in the annular fluidized bed is between 0.115 and 1.15.

Claim 4 (Previously Presented): The method as claimed in claim 1, wherein the Particle-Froude-Number in the mixing chamber is between 0.37 and 3.7.

Claim 5 (Previously Presented): The method as claimed in claim 1, further comprising adjusting the bed height of the solids in the reactor such that the annular fluidized bed extends beyond the upper orifice end of the at least one gas supply tube.

Claim 6 (Previously Presented): The method as claimed in claim 1, wherein the solids containing iron oxide comprise iron ore, nickel ore containing iron oxide, manganese ore containing iron oxide, or chromium ore containing iron oxide.

Claim 7 (Previously Presented): The method as claimed in claim 1, further comprising generating at least part of the amount of heat required for the heat treatment by combusting fuel supplied to the reactor with an oxygen-containing gas.

Claim 8 (Previously Presented): The method as claimed in claim 7, wherein the fuel is introduced into the reactor through the at least one gas supply tube.

Claim 9 (Previously Presented): The method as claimed in claim 7 wherein the fuel is introduced into the annular fluidized bed and/or the mixing chamber of the reactor.

Claim 10 (Previously Presented): The method as claimed in claim 7, wherein the oxygen-containing gas has an oxygen content of 15 to 30 % and is introduced into the reactor either through a conduit above the annular fluidized bed or through the at least one gas supply tube, wherein the at least one gas supply tube is centrally located.

Claim 11 (Previously Presented): The method as claimed in claim 7, wherein at least part of the exhaust gas of a second reactor downstream of the fluidized bed reactor is introduced into the fluidized bed reactor via the at least one gas supply tube.

Claim 12 (Previously Presented): The method as claimed in claim 11, further comprising supplying a mixture of exhaust gas from the second reactor, an oxygen-containing gas, and ~~of~~ gaseous fuel, to the fluidized bed reactor through the at least one gas supply tube.

Claim 13 (Previously Presented): The method as claimed in claim 1, further comprising combusting, in a combustion chamber upstream of the fluidized bed reactor, gaseous fuel and/or fuel-containing exhaust gas from a further reactor downstream of the fluidized bed reactor thereby generating a hot gas, and supplying the hot gas to the fluidized bed reactor via the at least one gas supply tube.

Claim 14 (Previously Presented): The method as claimed in claim 1, wherein the fluidizing gas is air.

Claim 15 (Previously Presented): The method as claimed in claim 1, wherein the pressure in the fluidized bed reactor is between 0.8 and 10 bar.

Claim 16 (Previously Presented): The method as claimed in claim 1, further comprising preheating the solids before entering the fluidized bed reactor in at least one preheating stage having a one or more suspension heat exchangers and a one or more downstream cyclones.

Claim 17 (Previously Presented): The method as claimed in claim 16, wherein the solids in a first suspension heat exchanger are heated by exhaust gas from a second suspension heat exchanger and in the second suspension heat exchanger the exhaust gas is from the fluidized bed reactor.

Claim 18 (Previously Presented): The method as claimed in claim 16, wherein 0 to 100 % of the solids separated in a cyclone of a first preheating stage are directly introduced into the fluidized bed reactor via a bypass conduit bypassing a second preheating stage, and wherein the remaining solids are first introduced into the second preheating stage before being introduced into the reactor.

Claim 19 (Withdrawn): A plant for heat treating solids containing iron oxide comprising a fluidized bed reactor, wherein the reactor comprises at least one gas supply tube at least partly surrounded by a stationary annular fluidized bed, and a mixing chamber located above the upper orifice region of the at least one gas supply tube, wherein gas flowing through the at least one gas supply tube entrains solids from a the stationary annular fluidized bed-into the mixing chamber when passing through the upper orifice region of the gas supply tube.

Claim 20 (Withdrawn): The plant as claimed in claim 19, wherein the at least one gas supply tube extends upwards substantially vertically from the lower region of the reactor into the mixing chamber of the reactor.

Claim 21 (Withdrawn): The plant as claimed in claim 19, wherein the at least one gas supply tube is arranged approximately centrally with reference to the cross-sectional area of the reactor.

Claim 22 (Withdrawn): The plant as claimed in claim 19, wherein the at least one gas supply tube has openings at its shell surface.

Claim 23 (Withdrawn): The plant as claimed in claim 19, further comprising a downstream cyclone for separating solids wherein the cyclone has a solids conduit leading to the annular fluidized bed of the reactor.

Claim 24 (Withdrawn): The plant as claimed in claim 19, further comprising a gas distributor in the annular chamber of the reactor, wherein the gas distributor divides the chamber into an upper fluidized bed region and a lower gas distributor chamber, and wherein the gas distributor chamber is connected with a supply conduit for fluidizing gas.

Claim 25 (Withdrawn): The plant as claimed in claim 19, wherein the reactor has a fuel supply conduit leading to the at least one gas supply tube and/or a fuel supply conduit leading to the annular chamber.

Claim 26 (Withdrawn): The plant as claimed in claim 19, wherein the reactor has a supply conduit for oxygen-containing gas, the supply conduit leading to the at least one gas supply tube or to a region above the annular fluidized bed.

Claim 27 (Withdrawn): The plant as claimed in claim 19, further comprising a combustion chamber upstream of the reactor.

Claim 28 (Withdrawn): The plant as claimed in claim 19, wherein the at least one gas supply tube is connected with a second reactor downstream of the fluidized bed reactor via a supply conduit.

Claim 29 (Withdrawn): The plant as claimed in claim 22, wherein the openings are in the form of slots.